

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of identifying a compound that inhibits binding of MUC1 to a tumor progressor, the method comprising:

(a) providing a MUC1 test agent, wherein the MUC1 test agent is phosphorylated and comprises comprising a YEKV site (SEQ ID NO:11);

(b) providing a tumor progressor test agent that binds to the phosphorylated MUC1 test agent;

(c) contacting the phosphorylated MUC1 test agent with the tumor progressor test agent in the presence of a test compound; and

(d) determining whether the test compound inhibits binding phosphorylation of the YEKV site of the phosphorylated MUC1 test agent to the tumor progressor test agent;

~~wherein a test compound that inhibits phosphorylation of the YEKV site of the MUC1 test agent is a compound that inhibits binding of MUC1 to a tumor progressor.~~

2. (Withdrawn) The method of claim 1, wherein the tumor progressor test agent is a c-Src test agent.

3. (Withdrawn) The method of claim 1, wherein the tumor progressor test agent is a p120^{ctn} test agent.

4. (Withdrawn) The method of claim 1, wherein the tumor progressor test agent is an epidermal growth factor receptor (EGF-R) test agent.

5. (Original) The method of claim 1, wherein the tumor progressor test agent is a β -catenin test agent.

6. (Withdrawn) The method of claim 1, wherein the tumor progressor test agent is a protein kinase C δ (PKC δ) test agent.

7. (Original) The method of claim 1, wherein the contacting is carried out in a cell-free system.

8. (Original) The method of claim 1, wherein the contacting occurs in a cell.

9. (Currently Amended) ~~[[A]]The method of claim 1 identifying a compound that inhibits binding of MUC1 to a tumor progressor, the method comprising:~~

~~(a) providing a MUC1 test agent comprising a YEKV site (SEQ ID NO:11);~~

~~(b) providing a tumor progressor test agent that binds to the MUC1 test agent;~~

~~(c) contacting the MUC1 test agent with the tumor progressor test agent in the presence of a test compound, wherein the test compound is a peptide fragment of the tumor progressor; and~~

~~(d) determining whether the test compound inhibits phosphorylation of the YEKV site of the MUC1 test agent,~~

~~wherein a test compound that inhibits phosphorylation of the YEKV site of the MUC1 test agent to a tumor progressor test agent is a compound that inhibits binding of MUC1 to a tumor progressor.~~

10. (Withdrawn) The method of claim 9, wherein the tumor progressor test agent is a c-Src test agent.

11. (Withdrawn) The method of claim 9, wherein the tumor progressor test agent is a p120^{ctn} test agent.

12. (Withdrawn) The method of claim 9, wherein the tumor progressor test agent is an epidermal growth factor receptor (EGF-R) test agent.

13. (Currently Amended) The method of claim 9, wherein the tumor progressor test agent is a β -catenin test agent and the MUC1 test agent is phosphorylated.

14. (Withdrawn) The method of claim 9, wherein the tumor progressor test agent is a protein kinase C δ (PKC δ) test agent.

15. (Previously Presented) The method of claim 9, wherein the contacting is carried out in a cell-free system.

16. (Currently Amended) The method of claim ~~[[1]]~~9, wherein the contacting occurs in a cell.

17. (Previously Presented) The method of claim 1, wherein the MUC1 test agent comprises SEQ ID NO:1.

18. (Currently Amended) The method of claim ~~[[9]]~~5, wherein the MUC1 test agent comprises SEQ ID NO:1 phosphorylated at Y8, Y20, Y26, Y35, or Y46.

19. (New) The method of claim 5, wherein the MUC1 test agent comprises SEQ ID NO:1 phosphorylated at Y46.

20. (New) The method of claim 5, wherein the MUC1 test agent comprises SEQ ID NO:1 phosphorylated at T41.

21. (New) The method of claim 5, wherein the MUC1 test agent is phosphorylated at the YEKV site.

22. (New) The method of claim 8, wherein the cell is a cancer cell.

23. (New) The method of claim 22, wherein the cancer cell expresses MUC1.

24. (New) The method of claim 22, wherein the cancer cell is a breast cancer cell, a lung cancer cell, a colon cancer cell, a pancreatic cancer cell, a renal cancer cell, a stomach cancer cell, a liver cancer cell, a bone cancer cell, a hematological cancer cell, a neural tissue cancer cell, a melanoma cell, an ovarian cancer cell, a testicular cancer cell, a prostate cancer cell, a cervical cancer cell, a vaginal cancer cell, or a bladder cancer cell.

25. (New) The method of claim 5, wherein providing a phosphorylated MUC1 test agent comprises combining a MUC1 test agent, a tumor progressor test agent with kinase activity, and a source of phosphate ions, wherein a phosphoryated MUC1 test agent is formed.

26. (New) The method of claim 25, wherein the tumor progressor test agent with kinase activity is c-src, EGF-R, or PDC δ .

27. (New) The method of claim 25, wherein the source of phosphate ions is ATP.